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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,588	07/31/2003	YUI-SHIN FRAN	10382-US-PA	1587

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JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE  
7 FLOOR-1, NO. 100  
ROOSEVELT ROAD, SECTION 2  
TAIPEI, 100  
TAIWAN

EXAMINER

ROY, SIKHA

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 03/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/604,588

Applicant(s)

FRAN ET AL.

Examiner

Sikha Roy

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-11 and 23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-11 and 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 21, 2005 has been entered.

Cancellation of claim 2 has been entered.

### ***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested:

FLAT LAMP STRUCTURE WITH ELECTRODES DISPOSED ON OUTER  
SURFACE OF THE SUBSTRATE.

### ***Claim Objections***

Claim 1 is objected to because of the following informalities:

In the limitation reciting 'electrodes disposed only and directly on a same outer surface of an outer wall' it is unclear what is meant by 'same outer surface'. The specification discloses (Figs.2 and 3) the top plate and the bottom dielectric substrate

are parallel and have the same dimension. For continuing examination it is considered that the electrodes are disposed on outer surface of an outer wall of the dielectric substrate.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,3-6 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,762,556 to Winsor.

Regarding claim 1 Winsor discloses (Fig. 1 column 3 lines 31-62 column 4 lines 37-39 column 6 lines 60-65) a flat lamp comprising a gas discharge chamber comprising a dielectric substrate 14, a plate 16 disposed above the dielectric substrate (plate made of glass material), a plurality of strips 18 (sidewalls) disposed between and connecting edges of the dielectric substrate and the plate, discharge gas inside the chamber, fluorescent substance (34 in Fig. 5) disposed on the inner wall of the discharge chamber and plurality of electrodes 22 disposed only and directly on the outer surface of the outer wall of the dielectric substrate 14.

Regarding claim 3 Winsor discloses (column 5 lines 53-56) the thickness of the bottom dielectric substrate is 1mm or less.

Regarding claim 4 Winsor discloses (column 6 lines 5-10) the distance between the dielectric substrate and the plate (height of the sidewall) is .51 mm.

Regarding claims 5 and 6 Winsor discloses (column 3 lines 38-42) the discharge gas is inert gas including one of Xe, Ar.

Regarding claim 23 Winsor discloses the gas discharge chamber 12 comprising spacers 20 distributed between the plates 14 and 16 to support the plates and thereby minimizing the danger of implosion due to external atmospheric pressure. (Fig. 1 column 3 lines 52-57).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7,8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,762,556 to Winsor, and further in view of U.S. Patent 6,034,470 to Volkommer et al.

Regarding claim 7 Winsor does not exemplify the electrodes being metal electrodes.

Vollkommer in analogous art of flat fluorescent lamp discloses (column 6 lines 15-18) the electrodes consisting of a metal such as silver. Vollkommer further discloses electrodes made of silver with high current carrying capacity can be constructed as a relatively narrow strip and formation of cracks can be avoided.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use electrodes of the lamp of Winsor made of metal as suggested by Vollkommer for providing strip electrodes with high current carrying capacity without formation of cracks.

Regarding claim 8 Vollkommer discloses (column 11 lines 53-56) electrodes made of silver.

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,762,556 to Winsor, and further in view of U.S. Patent 5,319,282 to Winsor ('282).

Regarding claim 9 Winsor is silent about a carrier substrate disposed beneath the dielectric substrate to carry the gas discharge chamber.

Winsor ('282) in the same field of endeavor discloses (Fig. 5 column 9 lines 54-60, column 10 lines 1-42) a flat lamp having a carrier substrate (planar substrate) 68 disposed on the plate 65 of the lamp creating a second chamber. The pressure in the second chamber being intermediate between the atmospheric pressure and the low

pressure inside the discharge chamber places less stress on the planar plate 65 of the lamp. Winsor('282) further discloses this configuration permits thinner plates to be used in the lamp 10 without danger of imploding and thus enhancing intensity of light emitted from the lamp.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to provide a carrier substrate disposed on the dielectric substrate of the flat lamp of Winsor as taught by Winsor('282) creating a second chamber which results in less stress on the dielectric substrate of the lamp and thus permitting use of thinner plate without danger of imploding.

Regarding the recitation of 'carrier substrate disposed beneath the dielectric substrate' the examiner notes that 'beneath' is a relative term and if light is emitting from the top plate of the flat lamp of Kuroda, then the carrier substrate disposed on the dielectric substrate can be interpreted as disposed beneath the bottom dielectric substrate.

Regarding claim 10 Winsor('282) discloses (column 13 lines 19-31 Fig. 5) the carrier substrate and the dielectric substrate are connected (bonded) by disposing adhesive on the side walls 70 and 72.

Regarding claim 11 Winsor('282) discloses adhesive includes glasses, UV epoxy resins or other suitable adhesive for permanently bonding the glass structures.



### ***Response to Arguments***

Applicant's arguments filed December 21, 2005 have been fully considered but they are not persuasive. In response to applicant's argument that Winsor fails to disclose 'a plurality of electrodes on a same outer surface of an outer wall of the dielectric substrate of the gas discharge chamber' the Examiner respectfully disagrees. Winsor does disclose (Fig. 1,10) a set of plurality of electrodes 22 which are disposed only and directly on the outer surface of the outer wall of the dielectric substrate 14. The other set of plurality of electrodes is on the plate and hence the limitations of claim 1 read on Winsor. Furthermore the Examiner notes that Winsor also discloses (column 3 lines 5-10 column 4 lines 37-39) the lamp contains first and second electrodes disposed along an exterior surface of at least one of the first and second plates /or substrates so that an electric field is created when electric power is applied to the electrodes.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.



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Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Sikha Roy*

Sikha Roy  
Patent Examiner  
Art Unit 2879